

E-MANAGEMENT  
FOR SCHOOL RESOURCE CENTER

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## **SUPERVISOR'S DECLARATION**

I hereby declare that I have checked this thesis and in my opinion, this thesis/ is adequate in terms of scope and quality for the award of the degree of Bachelor of Computer Science (Software Engineering)

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## **STUDENT'S DECLARATION**

I hereby declare that the work in this thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at Universiti Malaysia Pahang or any other institutions.

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## ABSTRAK

Tujuan kertas ini adalah untuk menukar atau menaik taraf sistem manual semasa ke dalam sistem berkomputer untuk mencapai pemprosesan maklumat yang lebih pantas dan cekap, penjanaan automatik pelbagai jenis laporan, pengurangan kos perkakasan dan perisian yang lebih besar dan mampu menghasilkan maklumat yang lebih tepat. Buku-buku di pusat sumber sekolah sering hilang kerana prosedur pengurusan yang betul tidak dilaksanakan. Guru sekolah juga menghadapi masalah untuk memeriksa buku apa yang terdapat di pusat sumber. Pelajar yang meminjam buku sering kali tidak memulangkan buku yang dipinjam tetapi tetap tidak disedari oleh pengurusan pusat sumber sekolah kerana proses mencari atau memeriksa buku yang ada dan yang hilang adalah tugas yang menyusahkan tanpa sistem pengurusan yang betul dan akan mengambil masa yang lama. Pelajar juga akan meninggalkan sekolah tanpa dihukum kerana rekodnya meminjam buku itu dengan mudah boleh hilang atau dimusnahkan tanpa jejak. Untuk menyelesaikan masalah yang dihadapi, kami mula-mula mengumpul keperluan sistem dan data berkaitan lain dari pusat sumber sekolah dan menganalisisnya dengan mewujudkan keperluan sistem permulaan. Kemudian kita mencari, menganalisis dan membandingkan sistem yang ada yang menangani masalah dengan cara mereka sendiri. Kami mencari kekuatan, kelemahan dan keperluan mereka yang kurang dan mula memreka bentuk sistem baru yang akan memenuhi semua keperluan. Kami menggunakan metodologi Pengembangan Aplikasi Rapid dari awal hingga akhir untuk memastikan projek itu dapat disampaikan tepat pada waktunya dalam anggaran projek dan berkualiti tinggi. Sistem akhir yang dihasilkan akan dapat menjejaki keberadaan mana-mana buku dalam beberapa saat dan dapat menghasilkan laporan yang tepat berdasarkan maklumat yang dicatat. Untuk membuat kesimpulan, sistem berkomputer mampu untuk menyelesaikan semua masalah yang sistem manual sekarang hadapi ditambah pula dengan penambahan beberapa penambahbaikan untuk memudahkan tugas mengurus pusat sumber sekolah.

## **ABSTRACT**

The purpose of this paper is to change or upgrade the current manual system into a computerized system to achieve faster and efficient in processing information, automatic generation of many types of reports , larger reductions in cost of hardware and software and have a more timely information produced. Books in school resource center are often lost as no proper managing procedure is implemented. School Teachers also have troubles finding out what book is in the resource center's possession. Student's who borrowed the books often not returned the borrowed books but remained unnoticed by the management of school resource center because checking and trying to find out what books is there and is missing is a tedious task without a proper management system and take a long time. The student also leave the school unpunished as the record of him borrowing the book can easily be lost or destroyed with no trace. To solve the problems at hand, system requirements and other related data from the school resource center is then gathered and analyzed to create a first defined system requirements. Then existing system that tackles the problems with their own ways is find, analyze and compare. Their strength, weakness and the requirements they are lacking is find and then begin to construct the new system design that fulfilled all requirements. The project use Rapid Application Development methodology from the beginning until the end to make sure the project can be delivered on time within the project's budget and is of high quality. The final system produced then be able to tracks the whereabouts of any books within seconds and able to produce accurate reports based on the information recorded. To conclude, the computerized system manage to solve all problems that the current manual system is facing with an addition of several improvement to ease the tedious task of managing the school resource center.

## **TABLE OF CONTENT**

<b>DECLARATION</b>	
<b>TITLE PAGE</b>	
<b>ACKNOWLEDGEMENTS</b>	<b>ii</b>
<b>ABSTRAK</b>	<b>iii</b>
<b>ABSTRACT</b>	<b>iv</b>
<b>TABLE OF CONTENT</b>	<b>v</b>
<b>LIST OF TABLES</b>	<b>viii</b>
<b>LIST OF FIGURES</b>	<b>ix</b>
<b>LIST OF SYMBOLS</b>	<b>x</b>
<b>LIST OF ABBREVIATIONS</b>	<b>xi</b>
<b>CHAPTER 1 INTRODUCTION</b>	<b>1</b>
1.1 INTRODUCTION	1
1.2 PROBLEM STATEMENT	2
1.3 OBJECTIVE	3
1.4 SCOPE	3
1.5 REPORT ORGANIZATION	4
<b>CHAPTER 2 LITERATURE REVIEW</b>	<b>5</b>
2.1 INTRODUCTION	5
2.2 TECHNOLOGIES	6
2.2.1 Web Browser	6
2.2.2 APACHE HTTP Server	7
2.2.3 MySQL	8



2.3	COMPARISON EXISTING SYSTEM	9
2.3.1	Tarantula PSS	9
2.3.2	E-Proses PSS	10
2.3.3	SENAYAN Library Automation System (SLiMS)	11
2.4	COMPARISON BETWEEN EXISTING SYSTEM	13
	System Comparison	13
	Advantages Comparison	14
	Disadvantages Comparison	14
2.5	CONCLUSION	15
<b>CHAPTER 3</b>	<b>METHODOLOGY</b>	<b>16</b>
3.1	INTRODUCTION	16
3.2	METHODOLOGY	17
3.2.1	Requirement Planning Phase	17
3.2.2	User Design	20
3.2.3	Construction	22
3.2.4	Cutover	23
3.3	Hardware and Software	24
3.3.1	Hardware Requirement	24
3.3.2	Software Requirement	25
3.4	Gantt Chart	25
<b>CHAPTER 4</b>		<b>26</b>
	IMPLEMENTATION, TESTING AND RESULT DISCUSSION	26
4.1	INTRODUCTION	26
4.2	IMPLEMENTATION	26
4.2.1	Development Environment	26

4.2.2	System Functionality	30
4.3	Testing and Result discussion	34
4.3.1	Functional Testing	34
<b>CHAPTER 5</b>		<b>36</b>
	CONCLUSION AND FUTURE WORK	36
5.1	INTRODUCTION	36
5.2	RESEARCH CONSTRAINT	36
5.2.1	Development Constraint	36
5.2.2	System Constraint	37
5.3	FUTURE WORK	37
<b>REFERENCES</b>		<b>38</b>
<b>APPENDIX A GANTT CHART</b>		<b>39</b>
<b>APPENDIX B Software Requirement Specification (SRS)</b>		<b>40</b>
<b>APPENDIX C Software Design Document (SDD)</b>		<b>41</b>

## **LIST OF TABLES**

Table 2.1 Existing System Comparison	13
Table 2.2 Existing System Advantages Comparison	14
Table 2.3 Existing System Disadvantages Comparison	14
Table 3.1 Hardware Requirement	24
Table 3.2 Software Requirement	25

## LIST OF FIGURES

Figure 2.1 Web Browsers	6
Figure 2.2 Apache Web Server	7
Figure 2.3 MySQL	8
Figure 2.4 phpMyAdmin	8
Figure 2.5 Tarantula's Login Page	9
Figure 2.6 E-Proses's Add Resource Page	10
Figure 2.7 E-Proses Homepage	10
Figure 2.8 SLiMS's Module Page	11
Figure 2.9 SLiMS's Homepage	12
Figure 3.1 Life Cycle Stages of RAD	17
Figure 3.2 Context Diagram	18
Figure 3.3 Use Case Diagram	19
Figure 3.4 Entity Relational Diagram	19
Figure 4.1 Command for installing Composer	27
Figure 4.2 XAMPP Manager	28
Figure 4.3 Laravel Home	29
Figure 4.4 PHPMyAdmin	29
Figure 4.5 E-MSRC Homepage	30
Figure 4.6 E-MSRC Navbar	30
Figure 4.7 E-MSRC Borrow and Return page	31
Figure 4.8 E-MSRC Student Check In	32
Figure 4.9 Manage Book	33
Figure 4.10 Manage User	34

## **LIST OF SYMBOLS**

Sdn Bhd

Sendirian Berhad

## **LIST OF ABBREVIATIONS**

SRC	School Resource Centre
E - MSRC	E – Management for School Resource Centre
SaaS	System as a Service
HTTP	Hypertext Transfer Protocol
RAD	Rapid Application Development
ERD	Entity Relational Diagram

## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 INTRODUCTION**

The School Resource Centres (SRCs) in Malaysia provide information and ideas that are fundamental to function successfully in today's information and knowledge-based society. The SRCs equip students with information literacy skills and help them develop life-long learning habits, enabling them to be knowledgeable and responsible citizens. (ZAINUDIN, 2016). SRCs mission is to provide learning opportunities to everyone who visits and sometimes it also serves as a place for students to find research materials, do individual work or discussion on certain topics.

Currently, there are few existing system that helps SRCs to manage their resources efficiently. These systems are usually owned by a company that charge every school who uses the system monthly or yearly depending on the company. The school is given one admin account that can create or register new users. This is to give multiple teacher or staff in charge access to the system's functionality. Some of the functions in this system are user login for SRC admin, resource management and status. Unauthorized users cannot access any of this system functionality as they are all in a restricted area only for logged in users. Once the user is logged in, they can manage school's resources in here. They can add, edit and delete these resources from the system's databases. If any of the resources became unavailable, the teacher or staff in charge needs to update the resource's status as unavailable for future reference.

Despite having made managing the resources in SRC easier, these existing systems still have room for improvement. E – Management for School Resource Centre (EMRC) aims to improve the areas in which the existing system is lacking. EMRC should have a searching function available for all levels of the system user. Users just have to input the name of the item they wish to find out and the system provide details of the item including the item's availability status. The system also provides a catalogue of all items in the system. Guest user, such as students only able to view the list and the item details while system's admin have the ability to manage the catalogue. System's admin may register students into the system either manually or with an excel sheet. If the student's info is in the system, the student may borrow SRC's items for personal use. All circulation transactions is recorded in the system. System admin is able to generate reports based on the recorded data.

## **1.2 PROBLEM STATEMENT**

Manual system used by school's resource centre is fully paper-based. Every records is hand-written and recorded on a piece of paper. That piece of paper in which contain a valuable information about the resources is vulnerable to harm. It can get burned, wet, torn or lost.

Papers consume space. The school resource centre must prepare extra shelves to accommodate all of the papers. If by chance some of the data on the paper is needed, it require a huge amount of time to locate the exact paper that records the information they need. It requires more time if the school resource centre uses a poor filing system.

Paper based system also have weak security. If no one is currently watching or guarding the papers, intruders can easily gain access to the data. This would cause unwanted troubles and therefore not recommended.



### **1.3 OBJECTIVE**

The objective of this system are as follow :

- i. To study the manual system and computerised the SRC Management system
- ii. To develop a prototype system of SRC Management system
- iii. To validate the proposed prototype system in web based.

### **1.4 SCOPE**

The scope of this project has been discussed and agreed upon. These are the scope of the system that have been identified for the system development.

- i. User :
  - a. The users of this system is the students, and admin(teacher in charge) and Library's Prefect..
- ii. Client :
  - a. Sekolah Menengah Kebangsaan(SMK) Sri Nilam.
- iii. Function Available :
  - a. Staff Lead
    - i. Roles & Permission – Mange Roles and Permission for other users
    - ii. Login – Login to admin's dashboard
    - iii. Manage Catalogue – Add, Update and Delete item and item's details
    - iv. Student Registration – Able to register students to user list.
    - v. Report – Able to generate reports.
  - b. Staff
    - i. Login – Login to admin's dashboard
    - ii. Manage Catalogue – Add, Update and Delete item and item's details
    - iii. Student Registration – Able to register students to user list.
    - iv. Report – Able to generate reports.
    - v. Student Check- In – Check in for students
  - c. Library's Prefect

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